⚠ DANGER

Japanese Barberry: Hazardous to You and Your Property

Walk through any home improvement store's garden section in the spring and you will find containers of Japanese barberry, *Berberis thunbergii*, in a dazzling array of foliage colors: lime green, bright red, burgundy. The plant tag promises a hardy, easy-to-grow shrub of moderate size that can handle a variety of soil and light conditions. Its vibrant red berries provide winter color. To top it off, deer don't like to eat it.

Barberry flowers in late spring. (Leslie J. Mehrhoff, University of Connecticut, Bugwood.org)

But what you really need to know to protect you and your property isn't on the plant tag.

As the name implies, Japanese barberry is a native of Asia. It was introduced to the United States in 1875 when Arnold Arboretum in Boston planted seeds from Russia. It became popular as a landscape plant in first half of the 1900s as an alternative to American barberry (*B. canadensis*) and common barberry (*B. vulgaris*). American and common barberry are alternative hosts for the fungus that causes black stem rust on cereal crop, including wheat, rye, oats and barley.

In 1918 the U.S. Department of Agriculture worked with wheat-growing states to launch a massive, six-decade-long barberry eradication program that resulted in half -billion barberry plants being destroyed. The American Phytopathological Society's website offers an interesting history of the innovative eradication program: apsnet.org/publications/apsnetfeatures/Pages/Barberry.aspx. Japanese barberry, which is not a host for the fungus, was recommended to fill in the landscaping gap caused by the eradication.

Bright red barberry fruit hang below the twig. (Chris Evans, University of Illinois, Bugwood.org)

One problem with Japanese barberry is that it doesn't stay where planted. Barberry spreads by a variety of methods—root suckers, stem tips touching the ground sprouting roots, and berries. The first two methods result in expansion of existing patches. Berries, however, allow for it to spread long distances. The berries last into the winter on the shrubs. When other preferred food sources are scarce, birds and small mammals eat barberries and deposit the seeds in new locations.

Once introduced, barberry can out-complete native plants, partially because barberry has a longer growing season. Barberry leafs out earlier in the spring and keeps its leaves longer in the fall. It also can change the soil's chemistry to prevent native species from growing even after the barberry has been removed from the site.

There is a link between barberry and Lyme disease. Studies found higher numbers of ticks infected with the bacteria that causes Lyme disease in areas with barberry infestations than in areas without barberry. The dense foliage of barberry provides shelter for mice and keeps humidity high. Young ticks survive better when humidity is high. Juvenile ticks feed on the mice and can get infected with Lyme bacteria. Ticks can pass the bacteria to you if you are unfortunate enough to pick them up during your outdoor adventures.

Young ticks have higher survival rates in barberry. (Jim Occi, Bug Pics, Bugwood.org)

Here are some ways to protect yourself and your property from the dangers of barberry:

1. <u>If you don't have it, don't add it.</u> Don't use barberry in your landscaping. Try a native shrub instead. Ninebark (*Physocarpus opulifolis*) and New Jersey tea (*Ceanothus americanus*) are two good alternatives. Both have white flowers and are great for pollinators. If you are looking for color, ninebark comes in maroon cultivars.
2. <u>If you have it, kill it.</u> Small plants can be pulled by hand or dug out. Wear thick gloves to protect yourself from the barberry spines. Remove as much of the root system as possible. For large plants or patches, consider a chemical treatment. You can cut the shrub and treat the stump, or treat the foliage. The Michigan Department of Natural Resources has a helpful article on best control practices for Japanese barberry, including treatment methods, timing and chemical recommendations: hmichigan.gov/documents/dnr/Japanese_Barberry_389121_7.pdf.